

## SEQUENCE LISTING

<110>	Matsumoto, Yoh-Ichi Kimura, Tsuyoshi Imaizumi, Atsuchi Takedo, Tae Co, May Sung Vasquez, Maximiliano TEIJIN LIMITED	
<120>	HUMANIZED ANTIBODIES THAT RECOGNIZE VEROTOXIN II AND CELL LINE PRODUCING SAME	1D
-130>	019026-000110119	

<130> 019026-000110US

<140> 09/700851

<141> 2000-11-17

<150> WO 99/59629

<151> 1999-05-19

<150> US 60/086,570

<151> 1998-05-20

<160> 8

<170> PatentIn Ver. 2.1

<210> 1

<211> 414

<212> DNA

<213> Mus musculus

<220>

<221> CDS

<222> (1)..(414)

<220>

<223> Figure 1(A): Heavy chain variable region of mouse antibody VTm1.1 (MuVTm1.1).

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atg aac ttt gtg ctc agc tcg att ttc ctt gcc ctc att tta aaa gga Met Asn Phe Val Leu Ser Ser Ile Phe Leu Ala Leu Ile Leu Lys Gly

gtc cag tgt gaa gtg cag ctg gtg gag tcg ggg gga ggc tta gtg aag Val Gln Cys Glu Val Gln Leu Val Glu Ser Gly Gly Leu Val Lys

cct gga ggg ccc ctg aaa ctc tcc tgt gca gcc tct gga ttc act ttc Pro Gly Gly Pro Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe

agt agt tat ggc atg tct tgg gtt cgc cag act ccg gag aag agg ctg Ser Ser Tyr Gly Met Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu

gag tgg gtc gca acc att agt act ggt ggt agt tac acc tac tac cca Glu Trp Val Ala Thr Ile Ser Thr Gly Gly Ser Tyr Thr Tyr Tyr Pro 70 75 65

gac agt gt Asp Ser Va		Arg Phe								288
gcc ctg ta Ala Leu Ty				eu Arg						336
tat tac tg Tyr Tyr Cy 11	s Ala Arg		_			_	_			384
ggt caa gg Gly Gln Gl 130		_	Val Se							414
<210> 2 <211> 138 <212> PRT <213> Mus	musculus									
<220> <223> Figu anti	re 1(A): cody VTml			riable	region	of mo	ouse			
<400> 2 Met Asn Ph 1	e Val Leu 5		Ile Ph	ne Leu 10	Ala Le	ı Ile	Leu	Lys 15	Gly	
Val Gln Cy	Glu Val 20	Gln Leu		lu Ser 25	Gly Gl	gly	Leu 30	Val	Lys	
Pro Gly Gl	-	. Lys Leu	Ser Cy 40	/s Ala	Ala Se	Gly 45	Phe	Thr	Phe	
Ser Ser Ty	c Gly Met	Ser Trn								
50		55		g Gln	Thr Pro		Lys	Arg	Leu	
Glu Trp Va	l Ala Thr	55		_	6	)	_			
Glu Trp Va		55 Ile Ser 70 Arg Phe	Thr Gl	ly Gly	6 Ser Ty: 75	Thr	Tyr	Tyr	Pro 80	
Glu Trp Va 65	l Lys Gly 85	55 Ile Ser 70 Arg Phe	Thr Gl	ly Gly le Ser 90	Ser Ty: 75 Arg As	Thr Asn	Tyr Ala	Tyr Lys 95	Pro 80 Asn	
Glu Trp Va 65 Asp Ser Va	l Lys Gly 85 r Leu Gln 100 s Ala Arg	55 Ile Ser 70 Arg Phe	Thr Gl Thr Il Ser Le	ly Gly le Ser 90 eu Arg	Ser Ty 75 Arg As	Thr Asn Asp	Tyr Ala Thr	Tyr Lys 95 Ala	Pro 80 Asn Ile	

<210> 3

<211> 381

<212> DNA

<213> Mus musculus

_	1> C	DS 1)	(381)	)									•			
<22 <22	3> F	igur Tm1.:							able	regi	ion d	of mo	ouse			
atg	Val	ttc Phe			_					-						48
gcc Ala	tcc Ser	aga Arg	ggt Gly 20	gat Asp	gtt Val	gtg Val	cta Leu	act Thr 25	cag Gln	tct Ser	cca Pro	gcc Ala	acc Thr 30	ctg Leu	tct Ser	96
		cca Pro 35														144
		aac Asn														192
	Leu	ctc Leu														240
		agt Ser														288
		gaa Glu														336
	_	ccg Pro 115	_							_	_		_	-		381
<21 <21	0 > 4 1 > 1 2 > P 3 > M	27	uscu.	lus												
<22 <22	3> F	igure Tm1.:			_				able	regi	ion o	of mo	ouse			
	0 > 4	Dh	Thr	Pro	Gln	Ile	Leu	Gly		Met	Leu	Phe	Trp	Ile 15	Ser	
	Val	Pne		5					10							
Met 1	Val	Arg		5	Val	Val	Leu	Thr 25		Ser	Pro	Ala	Thr 30		Ser	

•

	Asn Leu	His Try 59		n His	Lys Ser 60		Glu	Ser	Pro	
Arg Leu Leu 65	lle Lys	Ser Ala 70	ser Gl	n Ser	Ile Ser 75	Gly	Ile	Pro	Ser 80	
Arg Phe Ser	Gly Ser 85	<del>-</del>	Gly Th	r Asp 90	Phe Thi	Leu	Ser	Ile 95	Asn	
Ser Val Glu	Thr Glu	Asp Phe	e Gly Me 10		Phe Cys	Gln	Gln 110	Ser	Tyr	
Ser Trp Pro		Phe Gly	Ala Gl 120	y Thr	Lys Let	Glu 125	Leu	Lys		
		•								
<210> 5 <211> 414 <212> DNA <213> Mus m	usculus									
<220> <221> CDS <222> (1)	(414)									
<220> <223> Figur human	e 2(A): ized VTm					of				
<400> 5 atg aac ttt	gtg ctc	age te	att tt	a att						
Met Asn Phe	Val Leu 5	Ser Ser			_					48
Met Asn Phe	5 gaa gtg	Ser Ser	Ile Ph gtg ga	e Leu 10 g tcg u Ser	Ala Leu	Ile ggc	Leu tta	Lys 15 gtg	Gly	96
Met Asn Phe  1  gtc cag tgt	gaa gtg Glu Val 20 tcc ctg	caa cto	g gtg ga Val Gl 2 tcc tg	e Leu 10 g tcg u Ser 5 t gca s Ala	Ala Leu ggg gga Gly Gly gcc tct Ala Ser	ggc Gly gga Gly	tta Leu 30 ttc Phe	Lys 15 gtg Val act	Gly cag Gln	
Met Asn Phe  1  gtc cag tgt Val Gln Cys  cct gga ggg Pro Gly Gly	gaa gtg Glu Val 20 tcc ctg Ser Leu	caa cto Gln Leo aga cto Arg Leo tct tgg	g gtg ga Val Gl 2 tcc tg Ser Cy 40 g gtt cg Val Ar	e Leu 10 g tcg u Ser 5 t gca s Ala c cag	Ala Leu ggg gga Gly Gly gcc tct Ala Ser	ggc Gly gga Gly 45	tta Leu 30 ttc Phe	Lys 15 gtg Val act Thr	cag Gln ttc Phe	96
Met Asn Phen 1 gtc cag tgt Val Gln Cys cct gga ggg Pro Gly Gly 35 agt agt tat Ser Ser Tyr	gaa gtg Glu Val 20 tcc ctg Ser Leu ggc atg Gly Met	caa cto Gln Leo aga cto Arg Leo tct tgg Ser Trg 55	gtg ga Val Gl Val Gl Ser Cy 40 gtt cg Val Ar	e Leu 10 g tcg u Ser 5 t gca s Ala c cag g Gln t ggt	ggg gga Gly Gly gcc tct Ala Ser gct ccg Ala Pro	ggc Gly gga Gly 45 ggt Gly	tta Leu 30 ttc Phe aag Lys	Lys 15 gtg Val act Thr ggt Gly	cag Gln ttc Phe ctg Leu	96 ·
Met Asn Phen 1 gtc cag tgt Val Gln Cys cct gga ggg Pro Gly Gly 35 agt agt tat Ser Ser Tyr 50 gag tgg gtc Glu Trp Val	gaa gtg Glu Val 20 tcc ctg Ser Leu ggc atg Gly Met gca acc Ala Thr	caa cto Gln Let  aga cto Arg Let  tct tgg Ser Trr  55  att agt Ile Ser 70  cga tto	g gtg ga yal Gl tcc tg Ser Cy 40 gtt cg Val Ar act gg Thr Gl	e Leu 10 g tcg u Ser 5 t gca s Ala c cag g Gln t ggt y Gly c tcc	ggg gga Gly Gly gcc tct Ala Ser gct ccg Ala Pro 60 agt tag Ser Tyr 75	ggc gly 45 ggt Gly acc Thr	tta Leu 30 ttc Phe aag Lys tac Tyr	Lys 15 gtg Val act Thr ggt Gly tac Tyr	cag Gln ttc Phe ctg Leu cca Pro 80	96 144 192

tat tac tgt gca aga cgg ggg gac gca tgg ggt aac ttg gac tac tgg 384

Tyr Tyr Cys Ala Arg Arg Gly Asp Ala Trp Gly Asn Leu Asp Tyr Trp 115 120 125 ggt caa gga acc tta gtc acc gtc tcc tca 414 Gly Gln Gly Thr Leu Val Thr Val Ser Ser 130 135 <210> 6 <211> 138 <212> PRT <213> Mus musculus <223> Figure 2(A): Heavy chain variable region of humanized VTm1.1 antibody (HuVTm1.1). Met Asn Phe Val Leu Ser Ser Ile Phe Leu Ala Leu Ile Leu Lys Gly Val Gln Cys Glu Val Gln Leu Val Glu Ser Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Thr Ile Ser Thr Gly Gly Ser Tyr Thr Tyr Tyr Pro Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn 90 Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Arg Gly Asp Ala Trp Gly Asn Leu Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser 130 135 <210> 7 <211> 381 <212> DNA <213> Mus musculus <220> <221> CDS <222> (1)..(381) <223> igure 2(B): Light chain variable region of humanized VTm1.1 antibody (HuVTm1.1) .

<400> 7

atg gtt ttc aca cct Met Val Phe Thr Pro 1 5			
gcc tcc aga ggt gaa Ala Ser Arg Gly Glu 20			
gtg tct cca gga gaa Val Ser Pro Gly Glu 35			_
att agc aac aac cta Ile Ser Asn Asn Leu 50			
agg ctt ctc atc aag Arg Leu Leu Ile Lys 65			
agg ttc agt ggc agt Arg Phe Ser Gly Ser 85			
agt ctg gaa tct gaa Ser Leu Glu Ser Glu 100			
agt tgg ccg ctc acg Ser Trp Pro Leu Thr 115			
<210> 8 <211> 127 <212> PRT <213> Mus musculus			
<220> <223> igure 2(B): Li humanized VTml	ight chain varia L.1 antibody (Hu\		
<400> 8 Met Val Phe Thr Pro 1 5	Gln Ile Leu Gly	Leu Met Leu Phe 10	Trp Ile Ser 15
Ala Ser Arg Gly Glu 20	Ile Val Leu Thr 25	Gln Ser Pro Ala	Thr Leu Ser 30
Val Ser Pro Gly Glu 35	Arg Ala Thr Leu 40	Ser Cys Arg Ala 45	Ser Gln Thr
Ile Ser Asn Asn Leu 50	His Trp Tyr Gln 55	Gln Lys Pro Gly 60	Gln Ala Pro

Arg Leu Leu Ile Lys Ser Ala Ser Gln Ser Ile Ser Gly Ile Pro Ala

Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser 85 90 95

70

Ser Leu Glu Ser Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Ser Tyr 100 105 110

Ser Trp Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys 115 120 125